What is Claimed Is:

[c1] ~~1. A~~ method for sharing a single general purpose input/output (GPIO) line of an integrated circuit between at least two circuit components, the method comprising:

providing, using the GPIO line, a first input from a first circuit component to the integrated circuit during a first time;

providing, using the GPIO line, a first output from the integrated circuit to a second circuit component during a second time; and

wherein the first circuit component and the second circuit component are concurrently coupled to the GPIO line.

[c2] 2. The method of Claim 1, wherein the step of providing the first input includes providing the first input at a low frequency relative to a switching frequency of the GPIO line.

[c3] 3. The method of Claim 2, wherein the first time is at least in part concurrent with the second time.

[c4] 4. The method of Claim 1, wherein the first time is different from the second time.

[c5] 5. The method of Claim 1, further comprising the step of providing, using the GPIO line, a second input from the first circuit component to the integrated circuit during a third time different from the first time.

[c6] 6. The method of Claim 1, further comprising the step of providing, using the GPIO line, a second output from the integrated circuit to the second circuit component during a third time different from the second time.

[c7] 7. The method of Claim 1, wherein the step of providing a first input comprises the step of configuring the GPIO line as an input line during a portion of the first time, and the step of providing a first output comprises the step of configuring the GPIO line as an output line during the second time.

[c8] 8. The method of Claim 7, wherein:

the portion includes a first sequence of processing cycles; and

the second time includes a second sequence of processing cycles different from the first sequence.

[c9] 9. The method of Claim 1, wherein the first circuit component includes a switch.

[c10] 10. The method of Claim 1, wherein the second circuit component includes a light emitting diode.

[c11] 11. The method of Claim 10, wherein the second circuit component further includes an inverter.

[c12] 12. The method of Claim 1, wherein the integrated circuit comprises one or more of a group consisting of: a microprocessor, a microcontroller, a field programmable gate array, a programmable logic device, a programmable logic array, and an application specific integrated circuit.

[c13] 13. A method for sharing a general purpose input/output (GPIO) line of an integrated circuit, the method comprising:
connecting a first circuit component to the GPIO line;
connecting a second circuit component to the GPIO line concurrently with the first circuit component;
wherein the first circuit component is to provide input to the integrated circuit using the GPIO line during a first time; and
wherein the second circuit component is to receive an output from the integrated circuit using the GPIO line during a second time.

[c14] 14. The method of Claim 13, wherein the step of providing the first input includes providing the first input at a low frequency relative to a switching frequency of the GPIO line.

[c15] 15. The method of Claim 14, wherein the first time is at least in part concurrent with the second time.

[c16] 16. The method of Claim 13, wherein the first time is different from the second time.

[c17] 17. The method of Claim 13, further comprising the steps of:

configuring the GPIO line as an input line during a portion of the first time; and configuring the GPIO line as an output line during the second time period.

[c18] 18. The method of Claim 17, wherein:
the portion includes a first sequence of processing cycles; and
the second time includes a second sequence of processing cycles different from the first sequence.

[c19] 19. The method of Claim 13, wherein the first circuit component includes a switch.

[c20] 20. The method of Claim 13, wherein the second circuit component includes a light emitting diode.

[c21] 21. The method of Claim 20, wherein the second circuit component further includes an inverter.

[c22] 22. The method of Claim 13, wherein the integrated circuit is one of a group consisting of: a microprocessor, a microcontroller, a field programmable gate array, a programmable logic device, a programmable logic array, and an application specific integrated circuit.

[c23] 23. An electrical circuit having circuit components in electrical communication with an integrated circuit, the circuit being adapted to share a general purpose input/output (GPIO) line of the integrated circuit among at least two circuit components external to the integrated circuit, the circuit comprising: a first circuit component connected to the GPIO line; a second circuit component connected to the GPIO line concurrently with the first circuit component; the integrated circuit being adapted to receive an input from the first circuit component via the GPIO line during a first time; and the integrated circuit being adapted to provide an output to the second circuit component via the GPIO line during a second time.

[c24] 24. The circuit of Claim 23, wherein the first circuit is adapted to provide the first input at a low frequency relative to a switching frequency of the GPIO line.

[c25] 25. The circuit of Claim 24, wherein the first time is at least in part concurrent

with the second time.

[c26] 26. The circuit of Claim 23, wherein the first time is different from the second time.

[c27] 27. The circuit of Claim 23, wherein the GPIO line is configured as an input line during a portion of the first time, and the GPIO line is configured as an output line during the second time.

[c28] 28. The circuit of Claim 27, wherein the portion includes a first sequence of processing cycles, and the second time includes a second sequence of processing cycles different from the first sequence.

[c29] 29. The circuit of Claim 23, wherein the first circuit component includes a switch.

[c30] 30. The circuit of Claim 23, wherein the second circuit component includes a light emitting diode.

[c31] 31. The circuit of Claim 30, wherein the second circuit component further includes an inverter.

[c32] 32. The circuit of Claim 23, wherein the integrated circuit comprises at least one of a group consisting of: a microprocessor, a microcontroller, a field programmable gate array, a programmable logic device, a programmable logic array, and an application specific integrated circuit.

[c33] 33. In a system comprising electrical circuitry and components:
an integrated circuit having a general purpose input/output (GPIO) line;
a first circuit component coupled to the GPIO line, wherein the first circuit component is adapted to provide, at a first time, a first input to the integrated circuit using the GPIO line; and
a second circuit component coupled to the GPIO line, wherein the second circuit component is adapted to receive, at a second time, a first output from the integrated circuit using the GPIO line.

[c34] 34. The system of Claim 33, wherein the first circuit component further is

adapted to provide the first input at a low frequency relative to a switching frequency of the GPIO line.

[c35] 35. The system of Claim 34, wherein the first time is concurrent with the second time.

[c36] 36. The system of Claim 33, wherein the first time is different from the second time.

[c37] 37. The system of Claim 36, wherein:
the first time includes a first sequence of processing cycles; and
the second time includes a second sequence of processing cycles different from the first sequence.

[c38] 38. The system of Claim 33, wherein the integrated circuit comprises at least one of a group consisting of: a microprocessor, a microcontroller, a field programmable gate array, a programmable logic device, a programmable logic array, and an application specific integrated circuit.

[c39] 39. The system of Claim 33, wherein the first circuit component includes a switch.

[c40] 40. The system of Claim 33, wherein the second circuit component includes a light emitting diode.

[c41] 41. The system of Claim 40, wherein the second circuit component further includes an inverter.

[c42] 42. The system of Claim 33, wherein the system comprises a communications modem.

[c43] 43. The system of Claim 42, wherein the communications modem includes the first and second circuit components.

[c44] 44. The system of Claim 43, wherein the system is a DSL communications system.